

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

Nonin Medical, Inc.,

Plaintiff,

v.

Civ. No. 02-668 (JNE/AJB)
ORDER

BCI, Inc.,

Defendant.

Richard A. Arrett, Esq., Vidas, Arrett & Steinkraus, P.A., appeared for Plaintiff Nonin Medical, Inc.

Anthony C. Roth, Esq., Morgan, Lewis & Bockius LLP, and Jonathan S. Parritz, Esq., Maslon Edelman Borman & Brand, LLP, appeared for Defendant BCI, Inc.

This is an action by Nonin Medical, Inc. (Nonin) against BCI, Inc. for patent infringement. The case is before the Court on BCI's motion for summary judgment. For the reasons set forth below, the Court grants BCI's motion.

I. BACKGROUND

Nonin owns U.S. Patent No. 5,792,052 ('052 patent). The '052 patent describes a pulse oximeter that releasably grasps a patient's finger. The specifications of the '052 patent describe the disclosed device as consisting of two housings in electrical communication with one another, one of which has tabs designed to fit into the indents of the other. The two housings are connected with a spring comprised of two generally U-shaped spring elements (U-shaped spring) which allows the housings to separate and pivot relative to one another and which exerts pressure to hold the device in place on a user's finger.

Nonin alleges that BCI's Digit, also a pulse oximeter, infringes claims 1-4 of the '052 patent. Those claims provide:

1. Apparatus for measuring a blood oxygen saturation level of arterial blood inside a body portion, comprising:

gripping means for releasably gripping a finger, the gripping means comprising first and second housings interconnected by a pivot means which allows the first and second housings to pivot relative to one another to releasably grip a finger inserted between the first and second housings, the first and second housings being in electrical communication with each other;

electronic means for sensing and determining the blood oxygen saturation level of the arterial blood inside the gripped body portion, the electronic means being completely carried by the gripping means.

2. The apparatus of claim 1 further including a display means for displaying the sensed and determined blood oxygen saturation level, the display means being attached to the gripping means.

3. The apparatus of claim 2 wherein the gripping means is comprised of finger gripping means for releasably gripping a finger, and wherein the electronic means is a pulse oximeter means for sensing and determining the blood oxygen saturation.

4. The apparatus of claim 3 wherein the pivot means is also constructed and arranged to allow the first and second housings to separate from one another, and wherein the pivot means urges the two housings towards each other, thereby applying pressure to releasably grip a finger inserted between the first and second housings.

The Digit, a commercial embodiment of U.S. Patent No. 6,654,621,¹ has two finger grip members mounted to a single casing. The first finger grip is fixedly attached to the top portion of the casing; the second finger grip rests on four coil springs located at the corners of the casing. The coil springs evenly apply a biasing force that urges the lower finger grip toward the upper finger grip in a uniform fashion. When a finger is inserted into the Digit, the lower finger grip

¹ U.S. Patent No. 6,654,621 lists the '052 patent as prior art.

initially pivots and, as the finger is inserted further, moves away from the upper finger grip such that the finger grips are approximately parallel.

By Order of March 8, 2004, the Court construed four terms of the '052 patent that are relevant to BCI's motion for summary judgment. First, the Court construed "gripping means for releasably gripping a finger" as "two housings interconnected by a pivot means that firmly grasp or hold a finger in such a way as to allow a user to release the finger from the housings' grasp." Second, the Court construed "first and second housings," as "two separate, rigid cases, each containing a mechanism or apparatus." Third, the Court construed "interconnected" as "connected each with the other." Finally, the Court construed "pivot means" as a § 112, ¶ 6 means-plus-function limitation. The Court identified the function of the pivot means as pivoting and the corresponding structure as the tabs and indents of the two housings, together with the U-shaped spring.

II. DISCUSSION

Summary judgment is proper "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). The moving party "bears the initial responsibility of informing the district court of the basis for its motion," and must identify "those portions of [the record] which it believes demonstrate the absence of a genuine issue of material fact." *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). If the moving party satisfies its burden, Rule 56(e) requires the non-moving party to respond by submitting evidentiary materials that designate "specific facts showing that there is a genuine issue for trial." *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986). In determining whether summary judgment is appropriate, a court must look at

the record and any inferences to be drawn from it in the light most favorable to the non-moving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

BCI argues that it is entitled to summary judgment on Nonin's claims of literal infringement and infringement under the doctrine of equivalents. An infringement analysis entails two steps. First, the court determines the meaning and scope of the patent claims asserted to be infringed. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). Second, the court compares the properly construed claims to the device accused of infringing. *Id.* "To establish infringement a party must show that the accused device contains, either literally or by equivalents, every limitation of the claimed invention." *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1287 (Fed. Cir. 2000). Infringement, whether literal or under the doctrine of equivalents, is a question of fact. *Terlep v. Brinkmann Corp.*, No. 04-1337, 2005 WL 1950186, at *2 (Fed. Cir. Aug. 16, 2005).

A. Literal infringement

BCI first asserts that the Digit does not literally infringe the '052 patent because the Digit does not meet the "pivot means" limitation of claims 1-4. As set forth in the Order of March 8, 2004, "pivot means" invokes § 112, ¶ 6. "Literal infringement of a § 112, ¶ 6 limitation requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification." *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1267 (Fed. Cir. 1999). A device contains an equivalent structure under § 112, ¶ 6 and literally infringes the claim only if "the differences between the structure in the accused device and any disclosed in the specification are insubstantial." *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1309 (Fed. Cir. 1998). Differences in structure are insubstantial if the accused device performs

the identical function in substantially the same way to achieve substantially the same result as the corresponding structure in the patent specification. *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1435 (Fed. Cir. 2000); *Odetics*, 185 F.3d at 1267.

Claim 1 of the '052 patent, upon which claims 2-4 depend, claims a device having a pivot means that interconnects the first and second housings of the device and allows the first and second housings to pivot relative to one another to releasably grip a finger.² The parties agree that because the Digit does not contain tabs, indents, or a U-shaped spring, the Digit does not contain structures identical to the pivot means of the '052 patent's disclosed device. Nonin argues that the four springs, back rail, and back casing of the Digit are equivalent structures to the '052 patent's pivot means and that they perform the same functions. BCI, on the other hand, maintains that these Digit structures are not equivalent to the '052 patent means because they do not perform the functions of pivoting, interconnecting, or releasably grasping the finger in substantially the same way. BCI also argues that these structures do not perform the identical function of interconnecting the two housings.

The '052 patent claims a device wherein a U-shaped spring urges two housings—a first and second housing—together. This U-shaped spring, together with tabs and indents located on the sides of each housing, interconnects the housings. As the finger is inserted into the device,

² Nonin argues repeatedly that there is nothing in the Court's March 8, 2004 Order indicating that "interconnecting" the first and second housings is a function of the pivot means. On this basis, Nonin asks the Court to disregard any such limitation for purposes of the infringement analysis. The Court is perplexed by this argument. One of the clear limitations of claim 1 and all dependent claims is that the first and second housings of the disclosed device must be interconnected by the pivot means. Nonin appears to concede as much at some points. *See, e.g.*, Pl's Opp'n. Br. at 5 ("Spring 16 provides the following separate and distinct functions . . . it interconnects the two housings (see '052 patent, claim 1)"); *id.* at 6 ("Claim 1 of the '052 patent requires the two housings be 'interconnected' (first function) by a pivot means . . ."). That the Court did not reiterate this clear limitation in its March 8, 2004, Order does not mean that the limitation can or should be ignored for purposes of an infringement analysis.

the spring, tabs and indents allow for the two housings to pivot relative to one another about the tabs and indents.³ The device pivots in this manner to releasably grasp a finger.

As to the Digit, its lower finger grip rests on four helical springs that urge the lower finger grip toward the upper finger grip. When a finger is initially inserted into the Digit to overcome the urging force provided by the four corner springs, a rail on the back of the Digit's lower housing makes point contact with the lower edge of the back casing and provides a point about which the lower finger grip pivots relative to the top finger grip. The motion of the lower finger grip is aptly described as "wobbling": the movement of the lower finger grip varies depending upon the size and manner in which the finger is inserted. This pivoting or "wobbling" prevents parts of the Digit from binding or catching. As the finger is inserted farther into the Digit, the lower finger grip moves away from the upper finger grip such that the finger grips approach a parallel relationship with one another.⁴

In light of this evidence, no reasonable factfinder could conclude that the Digit pivots in substantially the same way as the '052 patented device. The '052 patent claims a device that pivots about tabs and indents located on the sides of the housings when a finger is inserted to overcome the urging force provided by a U-shaped spring. When the '052 patented device pivots, the housings simultaneously move away from one another. The Digit, on the other hand, pivots or "wobbles" about a rail and back wall casing when a finger is inserted to overcome the upward urging force provided by four helical springs. Unlike the '052 patented device, when the

³ In addition, depending on the size of the finger, the first and second housings may separate relative to one another.

⁴ Nonin has presented un rebutted expert opinion that, when the finger is initially inserted into the Digit, the lower finger grip pivots at approximately a 6 to 6.7 degree angle relative to the top finger grip. When a finger is fully inserted, the lower finger grip is pivoted at an angle of approximately 3.9 degrees relative to the top finger grip.

Digit pivots, only the lower housing moves. No reasonable factfinder could conclude that these differences in the way the devices pivot are insubstantial. Under these circumstances and because each of claims 1-4 contain the pivot means limitation, BCI is entitled to summary judgment on the issue of literal infringement. *See Kemco Sales, Inc. v. Control Papers Co. Inc.*, 208 F.3d 1352, 1365 (Fed. Cir. 2000).

Even assuming, however, that the Digit's back rail, lower edge of the back casing, and four springs do perform the function of pivoting in substantially the same way to achieve substantially the same result as the pivot means of the '052 patent's disclosed device, Nonin has not presented any evidence that these structures interconnect the Digit's two housings. On the contrary, it is undisputed that a skirt, not the Digit's springs, back rail, or the lower edge of the back casing, interconnects the Digit's housings. Accordingly, BCI is entitled to summary judgment on Nonin's claims of literal infringement for the additional reason that the allegedly equivalent pivot means structures do not perform the interconnecting function called for by the '052 patent.

B. Infringement under the doctrine of equivalents

BCI next maintains that it is entitled to summary judgment on Nonin's claim that the Digit infringes the '052 patent under the doctrine of equivalents. The basic inquiry under the doctrine of equivalents is whether the differences between the accused and disclosed structure are "insubstantial." *Id.* at 1364 n.6. The traditional test for determining whether an accused structure infringes under the doctrine of equivalents is the function-way-result test. *Id.* at 1364. Under that test, an accused structure infringes if it performs substantially the same function, in substantially the same way, to achieve substantially the same result, as the disclosed structure. *Id.* Thus, the equivalence analysis under § 112, ¶ 6 and the doctrine of equivalents are closely

related; the key difference is that the accused structure must perform the identical function as the disclosed structure to literally infringe under § 112, ¶ 6, but must merely perform a substantially similar function to infringe under the doctrine of equivalents. *See id.*; *Chiuminatta*, 145 F.3d at 1310. “When a court determines that the ‘way’ and/or ‘result’ is/are substantially different under a section 112, paragraph 6 equivalents analysis, a patentee cannot prevail under the doctrine of equivalents for the same reason(s).” *Kemco*, 208 F.3d at 1365.

In this case, the Court has already determined that no reasonable factfinder could conclude that the Digit’s back rail, lower edge of the back casing, and four springs perform the function of pivoting in substantially the same way as the ’052 patent’s pivot means. For the same reason, BCI is entitled to summary judgment insofar as Nonin claims infringement under the doctrine of equivalents.⁵

III. CONCLUSION

Based on the files, records, and proceedings herein, and for the reasons stated above, IT IS ORDERED THAT:

1. BCI’s motion for summary judgment [Docket No. 49] is GRANTED.
2. Nonin’s Complaint [Docket No. 1] is DISMISSED.

LET JUDGMENT BE ENTERED ACCORDINGLY.

Dated: August 30, 2005

s/ Joan N. Ericksen
JOAN N. ERICKSEN
United States District Judge

⁵ Having concluded that BCI is entitled to summary judgment of noninfringement, the Court declines to consider BCI’s argument that it is entitled to summary judgment on its defense that the ’052 patent is invalid for failing to comply with the best mode requirement of 35 U.S.C. § 112, ¶ 1.